

In the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

1 1. (Currently Amended) A method for tracking allocated space
2 in a write reservation station of a data transfer controller using
3 a write allocation count, said method comprising the steps of:
4 initializing said write allocation count to a predetermined
5 constant prior to performance of any data transfers;
6 incrementing said write allocation count on allocation of a
7 block of write reservation station space at a data destination for
8 future storage of data read from a data source;
9 decrementing said write allocation count on a read from a data
10 source destined for a write reservation station;
11 if said write allocation count meets predetermined criteria,
12 then reading from said data source, transferring said read data to
13 a data destination via a data routing channel and storing said
14 transferred data in allocated write reservation station space; and
15 if said write allocation count does not meet said
16 predetermined criteria, then performing no further allocations of
17 space to said write reservations station until said write
18 allocation count meets said predetermined criteria.

1 2. (Original) The method of claim 1, wherein:
2 said predetermined constant of said step of initializing said
3 write allocation count equals a number of data words storable in
4 said data routing channel.

1 3. (Currently Amended) The method of claim 1, wherein:
2 said step of incrementing said write allocation count on
3 allocation of a block of write reservation station space for future
4 storage of data read from a data source increments said write

5 allocation ~~counter~~ count by an amount equal to a number of data
6 words allocated.

1 4. (Currently Amended) The method of claim 1, wherein:
2 said step of decrementing said write allocation count on a
3 read from a data source decrements said write allocation ~~counter~~
4 count by an amount equal to a number of data words read.

1 5. (Original) The method of claim 1, wherein:
2 said step of reading from said data source reads data in an
3 amount equal to a read burst size constant related to a default
4 read burst size of said data source.

1 6. (Original) The method of claim 5, wherein:
2 said predetermined criteria of said write allocation count
3 includes whether said write allocation count is greater than or
4 equal to said read burst size constant.

1 7. (Original) The method of claim 5, wherein:
2 said predetermined criteria of said write allocation count
3 includes whether said write allocation count is greater than or
4 equal to a number of data words storable in said data routing
5 channel.

1 8. (Original) The method of claim 5, wherein:
2 said predetermined criteria of said write allocation count is
3 met if
4 said write allocation count is greater than or equal to
5 said read burst size constant, and
6 an allocation of a block of write reservation station
7 space was made in an immediately prior cycle.

1 9. (Original) The method of claim 5, wherein:
2 said predetermined criteria of said write allocation count is
3 met if
4 said write allocation count is greater than or equal to
5 said read burst size constant, and
6 an allocation of a block of write reservation station
7 space was not made in an immediately prior cycle, and
8 said write allocation count is greater than or equal to a
9 number of data words storable in said data routing channel.

1 10. (Original) The method of claim 5, wherein:
2 said predetermined criteria of said write allocation count is
3 met if
4 said write allocation count is not greater than or equal
5 to said read burst size constant, and
6 all write reservation station space at said data
7 destination has been allocated.

1 11. (Original) The method of claim 5, where:
2 said predetermined criteria of said write allocation count is
3 not met if
4 said write allocation count is not greater than or equal
5 to said read burst size constant, and
6 all write reservation station space at said data
7 destination have not been allocated.

1 12. (Original) The method of claim 5, wherein:
2 said predetermined criteria of said write allocation count is
3 not met if
4 said write allocation count is greater than or equal to
5 said read burst size constant, and

6 an allocation of a block of write reservation station
7 space was not made in an immediately prior cycle, and
8 said write allocation count is not greater than or equal
9 to a number of data words storable in said data routing
10 channel, and
11 all write reservation station space at said data
12 destination have not been allocated.

1 13. (Original) The method of claim 1, further comprising the
2 steps of:
3 reading data from said reservation station space and writing
4 said read data to said data destination at rate determined by said
5 data destination;
6 deallocating a block of write reservation space at said data
7 destination upon reading data from said reservation station space
8 and writing said read data to said data destination; and
9 said step of incrementing said write allocation count on
10 allocation of a block of write reservation station space at said
11 data destination occurs only if at least some write reservation
12 station space has not been allocated.

1 14. (Original) The method of claim 13, wherein:
2 said step of reading data from said reservation station space
3 reads data in an amount equal to a write burst size constant
4 related to a default write burst size of said data destination; and
5 said step of deallocating a block of write reservation space
6 at said data destination deallocates a block having a size equal to
7 said write burst size constant.